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(54) Title: METHODS FOR PREPARING AND FUNCTIONALIZING NANOPARTICLES

(57) Abstract: Fluorescent or phosphorescent nanoparticles, fluorescent or phosphorescent magnetic nanoparticles, combustion-based methods for their synthesis, and methods to functionalize them are described. The methods provided by the invention are simplified, efficient and cost effective as compared to prior art methods. The resulting fluorescent or phosphorescent nanoparticles have reduced tendency toward aggregation, and diminished need for postmanufacturing processing steps. The particles may be manufactured with combinations of lanthanides so as to absorb and emit light over a variety of wavelengths.

WO 2005/040756 A2